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Testimony of the

Interstate Commission
on the
Potomac River Basin

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Water: Is it the "Oil" of the 21st Century?

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House Transportation and Infrastructure Committee

Water Resources
and
Environment Subcommittee

Chairman John J. Duncan, Jr.

Created with an interstate compact by an Act of Congress, the ICPRB mission is to enhance, protect, and conserve the water and associated land resources of the Potomac River Basin through regional and interstate cooperation.

Mr. Chairman, I appreciate the opportunity to testify before your panel today as part of your fact-finding efforts related to water scarcity and responses to water supply problems. I am speaking on behalf of the Interstate Commission on the Potomac River Basin (**ICPRB**). We are one of a number of river basin focused organizations created by states and the Congress with water resources management functions.

The Interstate Commission on the Potomac River Basin is the interstate agency created by the Commonwealths of Pennsylvania and Virginia, the States of Maryland and West Virginia, the District of Columbia, and the United States Congress to address water resources issues in the 14,700 square mile drainage area that forms the Potomac River watershed. We are a non-regulatory body that deals with water quality and water quantity. Our major function is to provide the sound science needed by our member jurisdictions for water resources decision-making in the basin. With respect to water supply for the Washington Metropolitan Area, ICPRB's Section for Cooperative Water Supply Operations on the Potomac (CO-OP) manages the distribution of stored water during times of drought.

Our Commissioners, appointed by the member jurisdictions, represent a range of basin interests and have adopted as the Commission's fundamental mission "to enhance, protect, and conserve the water and associated land resources of the Potomac River and its tributaries through regional and interstate cooperation." We have been doing this since 1940, when the Congress approved our interstate compact.

Water resources issues in this 21st century have been raised to new levels of awareness because large parts of the United States dealt with various levels of drought last year. The timing of this hearing is excellent because drought awareness is fresh in many minds. In the Middle Atlantic region, recent rainfall and the past winter's snows may lead to a certain level of apathy. A need remains for corrective measures to address some of the problems that arose due to precipitation shortfalls from 1998 to 2002, problems that can be expected to grow in this region. It is the Commission's experience and belief that regional and interstate cooperation, as exemplified by the Commission's experience, is critical to the solution to those problems.

Development of new industry and new housing complexes in this region, as well as across the nation, have raised water concerns in many areas as suppliers try to keep pace with an expanding population. Environmental and regulatory concerns over construction of new reservoirs seem to point to the need to find new methods of providing water resources. For example, the use of groundwater as a source for domestic water supply may be seen as an attractive alternative to reservoirs. Water suppliers are exploring treatment options that may allow use of saline waters. Water demand is being reduced through a variety of conserving devices, some spurred on by the Energy Policy Act of 1992. Many basin utilities are actively promoting household and business conservation practices through education programs.

The Potomac River Basin is seeing these and other initiatives. I want to discuss a success story that serves as a model, but more importantly stands as solid testimony to the fact that cooperation, coordination, and communication among governmental jurisdictions, water suppliers and water resources agencies can ensure adequate supplies for a region.

The Metropolitan Washington area is served by three large water suppliers and several smaller purveyors. The action of the three large suppliers to plan for future water demands, more than a generation ago, provides clear evidence that cooperation and advance planning will enable a system to survive. Please keep the word "system" in mind, because it is the key to this story.

This Middle Atlantic area suffered through a drought of the 1930s that is recognized as the "drought of record." However, a later occurring severe drought event in the 1960s sparked the coordinated efforts to create a regional system that could withstand the drought of record through the year 2020, and possibly beyond.

The drought of the 1960s provided a call for action for the three metropolitan suppliers. The Army Corps of Engineers Washington Aqueduct Division that takes water from the Potomac, treats it and provides it to the District of Columbia, Arlington and Falls Church; the Fairfax County Water Authority (FCWA) which supplies a large segment of northern Virginia; and the Washington Suburban Sanitary Commission (WSSC), the supplier for large areas in Maryland surrounding the District in Montgomery and Prince Georges counties; recognized the need to improve supply to avoid depleting the Potomac River in the event of a future drought. The suppliers knew a drought would occur, they just did not know when. At the same time, the Army Corps of Engineers was completing an assessment of water resources. The "Potomac River Basin Report," issued in 1963 called for 16 new reservoirs in the Potomac basin to meet future water resources and other needs. The cost of the work associated with these 16 reservoirs was estimated to be almost $500 million dollars (1963 dollars, equivalent to nearly $3 billion today).

A group at The Johns Hopkins University and ICPRB staff worked with the water suppliers over a period of time to craft a "systems approach" to meeting water supply needs for the region's future demands. In developing this approach and the resulting system, it was demonstrated that coordinated effort among the suppliers could allow demands to be met well into the future with less construction of reservoirs. The suppliers and jurisdictions endorsed the study work and began their respective actions. In fact, only two of the recommended reservoirs were built, and one of them is a multiple purpose facility with flood control as a principal feature.

The stated aim of this coordinated system is to provide adequate water resources that do not require use restrictions during a drought event. This provides a high degree of consumer and customer certainty for the region. It worked through both the 1999 and 2002 drought events, and our studies indicate that the region can continue to withstand drought conditions, even those conditions approaching the drought of record, until the year 2020. Let me make note that this level of confidence applies only to the water suppliers for the Metropolitan Washington area. As you are aware there are other areas in the Middle Atlantic region as well as the rest of the country that suffer from inadequate water availability during drought conditions.

Implementation of the system was done by several actions:

- The interstate compact for ICPRB was amended in 1970, authorizing creation of sections where a water resource issue did not directly affect all member jurisdictions. In the case of the metropolitan Washington area, Pennsylvania did not have a large interest to be served, and they elected not be a part of the Cooperative Section on Water Supply Operations on the

Potomac River. Staff assigned to work with this new section now provide the lead on technical assistance to metropolitan area water supply suppliers with regard to regional water demand and resources issues.

- A "Low Flow Allocation Agreement" was adopted by the United States (with the Secretary of the Army as principal signatory), the State of Maryland, the Commonwealth of Virginia, the District of Columbia, and the two water suppliers for Maryland and Virginia (WSSC and FCWA) agreeing to a series of principles for operating the Potomac River withdrawals and other sources as a system during drought operations.

- A "Water Supply Coordination Agreement" was executed by the United States (with the Baltimore District Commander of the Army Corps of Engineers as signatory), the Fairfax County Water Authority, the Washington Suburban Sanitary Commission, the District of Columbia, and Interstate Commission on the Potomac River Basin, uniting to link the components of individual water supply systems in a coordinated manner to provide the optimal utilization of all available water supply for the inhabitants of the Washington Metropolitan Area. Pursuant to this Agreement, the ICPRB provides the administrative, technical, supervisory, and managerial services necessary for the implementation and operation of the system.

Since these actions took place, the two reservoirs described above were built with the water supply storage component costing $95 million (in 1981 dollars, equal to about $200 million today). The Jennings Randolph Reservoir, on the Maryland and West Virginia border in the basin headwaters, captures high flows (it has flood control as a principal purpose), and this water is periodically released for water quality augmentation to the river and for water supply (during droughts). The reservoir also supports major recreation activities with white-water rafting releases and fishing in the reservoir and in downstream areas. The second reservoir, Little Seneca in Montgomery County, Maryland, was built solely for water supply augmentation, but it also has developed into an exceptional recreation facility for its local area. Water supply storage in each of these facilities has only been used during two years since they were constructed - - in 1999 and in 2002 - - for water supply releases to meet demands in the Metropolitan Washington area. This is exactly what they were planned, designed, funded, and built to do!

The success of the system and its limited storage is the result of operations and planning by the utilities and the staff at ICPRB working to perform significant functions - -

- Practicing for a drought: Each year since 1982, the Commission and suppliers conduct a drought exercise to get used to working together in the event of a drought. These week-long events allow new staff at participating organizations to learn the system. It also gives participants a chance to verify communications capabilities and take other actions to review data and rehearse actions needed to operate during a supply problem. Since the drought event of 1999, we have expanded participation to include public communications and notification efforts that help the system run smoothly and understandably.

- Real and frequent coordination: General Manager level personnel at the utilities form an Operations Committee that provides guidance and oversight to ICPRB section staff. Their interactions are routine, so the mechanisms are in place for dealing with drought events or other

situations that may arise with respect with the utilities' ability to provide safe and adequate water supply to their customers.

- Continuing planning process: The Water Supply Coordination Agreement requires that the parties review and evaluate the adequacy of the available water supplies every five years. This charge began in 1990 and has been executed, and that is why we at the Commission and the suppliers can state with certainty that we can get through droughts until 2020 with the available supply sources. The suppliers consider this part of the Water Supply Coordination Agreement to be a mandate and necessary for the success of the system.

The region with its Potomac River supply sources was able to withstand drought conditions that became severe in 1999 and 2002 from lack of precipitation going back to the summer of 1998. In the metropolitan area, use restrictions did not have to be employed as a way of ensuring supplies because of careful planning and the cooperative efforts describe above. The utilities and local governments are addressing the wise and prudent use of water resources as part of a "wise water use" program.

Groundwater sources provide the baseflow of much of the Potomac basin during the late summer and fall months. We are seeing more demands placed on the groundwater resources of the basin with new and deeper wells, more irrigation of crops, and more consumptive use by industries and municipalities. We do not know enough about the groundwater resources, but this Congress has approved funding in the Fiscal Year 2003 Interior Appropriation to help us quantify this valuable resource. Spurred by the 2002 drought conditions that so adversely impacted large parts of the Potomac basin, congressmen Bartlett, Gilchrest, and Wolf along with former members, Congresswoman Morella and Governor Ehrlich, supported funding for this project. We are also aware that Congressman Van Hollen has also expressed support during the current session. On behalf of the basin, we are grateful for this interest and the support. We will be working with local governments to try to give them answers to the questions they address daily with respect to groundwater. We will be working with the basin states and the U. S. Geological Survey to provide the science based information for better solutions.

As I conclude, let me present a summary of lessons learned in the Potomac River Basin with respect to water resources management that may prove valuable in other parts of this nation:

- Significant financial resources were saved by governmental jurisdictions and a wide range of interests operating as a regional system. Interstate agencies such as the ICPRB can play a significant role in the cooperation necessary to such a system and the management of its resources. Innovative planning, rather than completely independent entities building reservoirs in the basin, has proven beneficial.

- Interstate agencies such as the Interstate Commission on the Potomac River Basin provide a good model for managing water resources on a watershed basis. ICPRB is frequently visited by other water resources managers, many from other countries, interested in ways to improve management of sometimes very scarce resources.

- Cooperation, coordination, and communication among water suppliers and water resources agencies are necessary to ensure adequate supplies for a region.

- Advanced and continuous planning is essential. We cannot simply wait for an emergency to act. Let us not allow apathy to set in after the drought events in 2002.

- Local and regional action is essential. It is an old cliche, but we all know that water does not always see and respect state and municipal boundaries. We need to work together on the issues.

- Federal agencies and the Congress have a major support role to play where needed and where appropriate. For example, the Corps of Engineers is a major player in the Potomac with the Low Flow Allocation Agreement, the Water Supply Coordination Agreement, in the construction and operations and maintenance associated with the Jennings Randolph Reservoir, and as a water supplier for Washington, D.C.

- The Potomac model is not necessarily the only solution, however, it is a reasonable one. We have been successful because:

The cooperating utilities wanted to be successful
The states and federal agencies wanted to be successful
Parties have all given - and continue to give - a bit for the common good

I appreciate the opportunity to have participated today. Thank you, Mr. Chairman.